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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/574,443

DATE: 01/24/2002

TIME: 14:40:13

Input Set : A:\ES.txt

Output Set: N:\CRF3\01242002\I574443.raw

ENTERED

3 <110> APPLICANT: Dahiyat, Bassil I.  
4 Morton, Andrew G.  
6 <120> TITLE OF INVENTION: NOVEL PROTEINS WITH INSULIN-LIKE ACTIVITY USEFUL IN THE  
TREATMENT OF

7 DIABETES

9 &lt;130&gt; FILE REFERENCE: A-68064-1/RFT/RMS/RMK

11 &lt;140&gt; CURRENT APPLICATION NUMBER: US 09/574,443

12 &lt;141&gt; CURRENT FILING DATE: 2000-05-19

14 &lt;150&gt; PRIOR APPLICATION NUMBER: US 60/134,930

15 &lt;151&gt; PRIOR FILING DATE: 1999-05-19

17 &lt;160&gt; NUMBER OF SEQ ID NOS: 23

19 &lt;170&gt; SOFTWARE: PatentIn version 3.1

21 &lt;210&gt; SEQ ID NO: 1

22 &lt;211&gt; LENGTH: 110

23 &lt;212&gt; TYPE: PRT

24 &lt;213&gt; ORGANISM: Homo sapiens

26 &lt;300&gt; PUBLICATION INFORMATION:

27 &lt;308&gt; DATABASE ACCESSION NO: P01308

28 &lt;309&gt; DATABASE ENTRY DATE: 1986-07-21

29 &lt;313&gt; RELEVANT RESIDUES: (1)..(110)

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34 1 5 10 15

37 Trp Gly Pro Asp Pro Ala Ala Ala Phe Val Asn Gly His Leu Cys Gly

38 20 25 30

41 Ser His Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Glu Arg Gly Phe

42 35 40 45

45 Phe Tyr Thr Pro Lys Thr Arg Arg Glu Ala Glu Asp Leu Gln Val Gly

46 50 55 60

49 Gln Val Glu Leu Gly Gly Gly Pro Gly Ala Gly Ser Leu Gln Pro Leu

50 65 70 75 80

53 Ala Leu Glu Gly Ser Leu Gly Lys Arg Gly Ile Val Glu Gln Cys Cys

54 85 90 95

57 Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys Asn

58 100 105 110

61 &lt;210&gt; SEQ ID NO: 2

62 &lt;211&gt; LENGTH: 51

63 &lt;212&gt; TYPE: PRT

64 &lt;213&gt; ORGANISM: Homo sapiens

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67 &lt;308&gt; DATABASE ACCESSION NO: 229122

68 &lt;309&gt; DATABASE ENTRY DATE: 1992-07-10

69 &lt;313&gt; RELEVANT RESIDUES: (1)..(51)

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## RAW SEQUENCE LISTING

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73 Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu
74 1           5           10           15
77 Glu Asn Tyr Cys Asn Phe Val Asn Gln His Leu Cys Gly Ser His Leu
78           20           25           30
81 Val Glu Ala Leu Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr
82           35           40           45
85 Pro Lys Thr
86           50

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89 &lt;210&gt; SEQ ID NO: 3

90 &lt;211&gt; LENGTH: 21

91 &lt;212&gt; TYPE: PRT

92 &lt;213&gt; ORGANISM: Homo sapiens

94 &lt;300&gt; PUBLICATION INFORMATION:

95 &lt;301&gt; AUTHORS: Ciszak, E. and Smith, G.D.

96 &lt;302&gt; TITLE: Crystallographic evidence for dual coordination around zinc in the T3R3 human insulin hexamer

98 &lt;303&gt; JOURNAL: Biochemistry

99 &lt;304&gt; VOLUME: 33

100 &lt;305&gt; ISSUE: 6

101 &lt;306&gt; PAGES: 1512-1517

102 &lt;307&gt; DATE: 1994-02-15

103 &lt;308&gt; DATABASE ACCESSION NO: 494680

104 &lt;309&gt; DATABASE ENTRY DATE: 1993-11-19

105 &lt;313&gt; RELEVANT RESIDUES: (1)..(21)

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113 Glu Asn Tyr Cys Asn

114 20

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120 &lt;213&gt; ORGANISM: Homo sapiens

122 &lt;300&gt; PUBLICATION INFORMATION:

123 &lt;301&gt; AUTHORS: Ciszak, E. and Smith, G.D.

124 &lt;302&gt; TITLE: Crystallographic evidence for dual coordination around zinc in the T3R3 human insulin hexamer

126 &lt;303&gt; JOURNAL: Biochemistry

127 &lt;304&gt; VOLUME: 33

128 &lt;305&gt; ISSUE: 6

129 &lt;306&gt; PAGES: 1512-1517

130 &lt;307&gt; DATE: 1994-02-15

131 &lt;308&gt; DATABASE ACCESSION NO: 494681

132 &lt;309&gt; DATABASE ENTRY DATE: 1993-11-19

133 &lt;313&gt; RELEVANT RESIDUES: (1)..(30)

135 &lt;400&gt; SEQUENCE: 4

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137 Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr
138 1           5           10           15

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141 Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr

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151 <301> AUTHORS: Ciszak, E. and Smith, G.D.
152 <302> TITLE: Crystallographic evidence for dual coordination around zinc in the T3R3
153      human insulin hexamer
154 <303> JOURNAL: Biochemistry
155 <304> VOLUME: 33
156 <305> ISSUE: 6
157 <306> PAGES: 1512-1517
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170          20
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174 <211> LENGTH: 30
175 <212> TYPE: PRT
176 <213> ORGANISM: Homo sapiens
178 <300> PUBLICATION INFORMATION:
179 <301> AUTHORS: Ciszak, E. and Smith, G.D.
180 <302> TITLE: Crystallographic evidence for dual coordination around zinc in the T3R3
181      human insulin hexamer
182 <303> JOURNAL: Biochemistry
183 <304> VOLUME: 33
184 <305> ISSUE: 6
185 <306> PAGES: 1512-1517
186 <307> DATE: 1994-02-15
187 <308> DATABASE ACCESSION NO: 494683
188 <309> DATABASE ENTRY DATE: 1993-11-19
189 <313> RELEVANT RESIDUES: (1)..(30)
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198          20          25          30
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202 <211> LENGTH: 51
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204 <213> ORGANISM: Artificial Sequence
206 <220> FEATURE:
207 <223> OTHER INFORMATION: synthetic

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212 1 5 10 15

215 Tyr Asn Phe Asp Asn Asp Val Asn Phe His Leu Tyr Gly Ser His Ile

216 20 25 30

219 Arg Glu Trp Leu Tyr Leu Val Ala Gly Glu Arg Gly Phe Asn Phe Asp

220 35 40 45

223 Pro Lys Thr

224 50

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229 &lt;212&gt; TYPE: PRT

230 &lt;213&gt; ORGANISM: Artificial Sequence

232 &lt;220&gt; FEATURE:

233 &lt;223&gt; OTHER INFORMATION: synthetic

235 &lt;400&gt; SEQUENCE: 8

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238 1 5 10 15

241 Glu Asn Tyr Cys Asn Phe Glu Asn Tyr His Leu Tyr Gly Ser His Leu

242 20 25 30

245 Val Glu Ala Leu Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr

246 35 40 45

249 Pro Lys Thr

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255 &lt;212&gt; TYPE: PRT

256 &lt;213&gt; ORGANISM: Artificial Sequence

258 &lt;220&gt; FEATURE:

259 &lt;223&gt; OTHER INFORMATION: synthetic

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267 Glu Asn Tyr Cys Asn Phe Val Asn Gln His Leu Asp Gly Ser His Leu

268 20 25 30

271 Val Glu Ala Leu Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr

272 35 40 45

275 Pro Lys Thr

276 50

279 &lt;210&gt; SEQ ID NO: 10

280 &lt;211&gt; LENGTH: 51

281 &lt;212&gt; TYPE: PRT

282 &lt;213&gt; ORGANISM: Artificial Sequence

284 &lt;220&gt; FEATURE:

285 &lt;223&gt; OTHER INFORMATION: synthetic

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290 1 5 10 15

293 Glu Asn Tyr Cys Asn Phe Thr Asn Tyr His Leu Tyr Gly Ser His Leu

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Input Set : A:\ES.txt

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301 Pro Lys Thr
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310 <220> FEATURE:
311 <223> OTHER INFORMATION: synthetic
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320          20          25          30
323 Val Glu Ala Leu Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr
324          35          40          45
327 Pro Lys Thr
328          50
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336 <220> FEATURE:
337 <223> OTHER INFORMATION: synthetic
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345 Glu Asn Tyr Cys Asn Phe Val Asn Gln His Leu Glu Gly Ser His Leu
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349 Val Glu Ala Leu Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr
350          35          40          45
353 Pro Lys Thr
354          50
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375 Tyr Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr
376          35          40          45
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VERIFICATION SUMMARY

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